



# City of Richmond

## Report to Committee

**To:** General Purposes Committee

**Date:** June 1, 2011

**From:** Cecilia Achiam, MCIP, BCSLA  
Interim Director, Sustainability and District Energy  
Senior Program Manager, CPMG, CAO's Office

**File:** 01-0370-01/2011-  
Vol01

**Re:** Reaching Carbon Neutrality – Proposed Richmond Strategy

### Staff Recommendation

1. That Council adopt the strategy, as outlined in Attachment 5 of the attached report titled "Reaching Carbon Neutrality - Proposed Richmond Strategy", dated June 1, 2011.
2. That the City work with the Province and UBCM to establish carbon compensation credits for Richmond-based initiatives.

Cecilia Achiam, MCIP, BCSLA  
Interim Director, Sustainability and District Energy  
Senior Program Manager, CPMG, CAO's Office  
(604-276-4122)

Att. 5

FOR ORIGINATING DEPARTMENT USE ONLY			
<b>ROUTED TO:</b>		<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Parks		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Project Development		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
Community Safety		Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
<b>REVIEWED BY TAG</b>	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	<b>REVIEWED BY CAO</b>
			YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

## Staff Report

### Origin

The City of Richmond has committed to becoming carbon neutral in its civic operations by 2012. The purpose of this report is to present to Council a proposed approach for meeting this commitment in a manner that itself is sustainable. The proposed approach supports the following Council Term Goal:

*Council Term Goal #7: "Sustainability and the Environment – Demonstrate leadership in and significant advancement of the City's agenda for sustainability through the development and implementation of a comprehensive strategy that among other objectives includes incorporating sustainability into our City policies and bylaws".*

### Background

Climate change is identified as one of the most pressing social, economic and environmental issues facing society<sup>1</sup>. Responding effectively to climate change means taking action directed at:

1. Climate Protection (i.e., avoid greater changes); and
2. Climate Change Adaptation (i.e., increase ability to adapt to unavoidable changes).

Climate protection involves reducing emissions of greenhouse gases which are causing the atmosphere to retain greater levels of solar radiation. It also means protecting ecosystems which store and/or absorb greenhouse gases.

In 2008, the City of Richmond signed the BC Climate Action Charter, a voluntary agreement among the Province, Union of British Columbia Municipalities (UBCM) and local governments. This Charter signified the City's intention to work with the Province and UBCM to accelerate action for protecting the climate by reducing greenhouse gas emissions. The Charter commits local government to 3 goals:

- becoming carbon neutral in civic operations by 2012;
- measuring and reporting on their community greenhouse gas emissions profile; and
- creating complete and compact communities, more energy efficient communities.

The City's commitment to carbon neutrality is currently one of eight targets developed to-date and incorporated into the City's Sustainability Framework (**Attachment 1**). These targets include climate protection targets for the corporation and the community. The corporate target is to be carbon neutral by 2012. The community target is to achieve a 33% greenhouse gas emission reduction from 2007 levels by 2020 and an 80% greenhouse gas emission reduction by 2050.

### About Carbon Neutrality

In broad terms, carbon neutrality involves two main actions: reducing internal greenhouse gas emissions and making investments to "offset" unavoidable emissions. An "offset" is compensatory measure made by an individual or company for their greenhouse gas emissions. To be considered an "offset", the compensatory measure must be made outside of an organization's core service areas.

To achieve carbon neutrality, an organization must measure its levels of greenhouse gas emissions (commonly referred to as carbon footprint), reduce its emissions to the largest extent possible, invest in offsets to balance remaining unavoidable emissions and report activities (i.e., Measure, Reduce, Offset,

<sup>1</sup> "Climate change is the defining challenge of our generation. Scientists warn we have less than 10 years to halt the global rise in greenhouse gas emissions if we are to avoid catastrophic consequences.... It is a practical and moral imperative." Ban Ki-moon, United Nations Secretary-General, 2009.

and Report). These activities must be conducted each year and as such, carbon neutrality must be managed as an annual program. A glossary of climate change terminology is provided in **Attachment 2**.

### **The Need for A Sustainable Approach to Carbon Neutrality**

Carbon neutrality has built momentum in accelerating climate protection action and is viewed as a potential catalyst to advance a low-carbon economy. By embedding the cost of greenhouse gas emissions, carbon neutrality helps business case decisions become closer in considering actual costs. However, carbon neutrality is a relatively new concept and the science and best management practices are continuing to be developed. While various protocols have been developed, no universally accepted practice has been established. As such, various standards exist for measuring greenhouse gas emissions and establishing offsets. Other challenges also exist that if inadequately managed, can risk corporate credibility, result in high cost/limited gain outputs and/or otherwise impair the advancement of sustainability. These challenges are discussed in **Attachment 3**.

To ensure that carbon neutrality is advanced in a way that is itself inherently sustainable (e.g., can be supported over the long-term, uses fiscal resources wisely, doesn't come at the expense of other important sustainability objectives, etc.), it is important that these challenges be well-managed and that the carbon neutrality agenda is guided by broader sustainability principles.

### **City of Richmond's Climate Action**

Before the introduction of the Climate Action Charter, the City of Richmond had adopted a comprehensive approach to climate change, inclusive of both greenhouse gas emissions reduction and climate change adaptation at both the corporate and community level. The City had also already implemented a wide range of action initiatives. At the corporate level, highlight initiatives include the city's High Performance Building Policy, corporate Green Fleet Policy, corporate recycling program, corporate energy-retrofit program and city carpool program. Community-based initiatives include the City's land-use policies in support of complete and compact communities, green development policies, alternative transportation initiatives, community recycling program and outreach initiatives such as the Climate Change Showdown. Most recently, Richmond Council adopted a Strategic Climate Change Program as part of its Sustainability Framework which established targets and set strategic direction.

Council endorsed the recommendation to sign the Climate Charter as a means to continue its corporate leadership. However, the commitment was based on the fulfillment of specific conditions, namely that the Province would work with municipalities to develop a carbon neutral approach that was well-resourced and adequately flexible to address multiple local government interests. A copy of the Mayor's letter to the Premier and response letter from the Province is provided in **Attachment 4**.

### **Emerging Provincial Climate Neutral Framework**

Since the launch of the BC Climate Action Charter, the Province has introduced a new program that enables those local governments who have signed the Charter to be reimbursed for their carbon tax expenditures. The Province has also been working with a joint committee with representatives from UBCM and local governments to develop a framework for establishing a carbon neutral protocol. The

City, along with other local governments, has been working to influence the Provincial framework development to meet local governments' interests<sup>2</sup>.

Specifically, the City of Richmond has been advocating for a framework that:

- advances carbon neutrality as part of a broader sustainability agenda (e.g., directs an appropriate level of investment to carbon neutrality in proportion to investment needs in other areas, uses public funds appropriately, etc.);
- enables carbon offsets to be invested locally;
- is fiscally sustainable for local governments, empowering municipalities to reduce their own greenhouse gas emissions and costs over time;
- supports local government policy action (in addition to capital investment) that can result in emission reduction gains in the community; and
- recognizes and supports strengthening carbon resiliency (e.g., the ability of urban forests and natural ecosystems to retain carbon).

In May 2011, the Province released a proposed framework for guiding implementation of carbon neutrality<sup>3</sup>. The proposed framework outlines the four main steps for achieving carbon neutrality – Measure, Reduce, Balance and/or Offset, and Report. Three options are proposed to balance/offset annual emissions:

- Option 1 - Invest in Provincially-approved greenhouse gas emission reduction projects within local communities;
- Option 2 - Invest in alternate community emission reduction projects as identified by local governments;
- Option 3 - Purchase offsets through a third-party (e.g., Pacific Carbon Trust, etc.).

The opportunity to reinvest compensation action locally has been provided in the framework with the introduction of Options 1 and 2. However, as currently designed, these options generally do not provide viable compensation action initiatives<sup>4</sup>. As such, the proposed framework is predominately orientated towards the one option of purchasing third-party offsets. Third-party offsets are generally invested outside of local communities and often support greenhouse gas emission reduction in the private sector. There are additional challenges including a lack financial support and other tools for supporting local governments to reduce corporate greenhouse gas emissions<sup>5</sup>, and has not incorporated considerations pertaining to either policy investments or strengthening carbon resiliency.

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<sup>2</sup> A number of measures have been taken to influence Provincial framework development, including UBCM resolutions, correspondence to the Province through Metro Vancouver Regional Engineering Advisory Committee (REAC) and joint workshops and discussions with Provincial staff.

<sup>3</sup> The Guidebook can be found at [http://toolkit.bc.ca/sites/default/files/BecomingCarbonNeutral\\_Guidebook\\_05.11.pdf](http://toolkit.bc.ca/sites/default/files/BecomingCarbonNeutral_Guidebook_05.11.pdf)

<sup>4</sup> Option 1 projects, which consist largely of fleet conversions and energy retrofits in non-City facilities, will be difficult to implement as they are unlikely to be considered an appropriate use of local government funds. Option 2 allows local governments to identify their own community-based projects but such projects are unlikely to be cost-effective given the burden of verification being sought.

<sup>5</sup> It has been suggested that local governments could use reimbursed carbon tax funds to purchase offsets. However, this would mean that these monies would no longer be available to support internal reduction actions and reduce the need to purchase offsets over time. As such, local governments would need to keep spending money to pay for corporate emissions.

## **Richmond's Proposed Carbon Responsible Approach**

Recognizing that the Charter is voluntary, that it is a joint effort with UBCM and that the timelines being taken by the Province to develop a framework were leaving municipalities with very little time for implementation, the City of Richmond has been proactive in developing a made-in-Richmond strategy.

The City's proposed Carbon Responsible Strategy is presented in **Attachment 5**. The City's strategy is based on the vision to address key challenges and achieve carbon neutrality in a cost-effective and sustainable manner.

The City has already completed the first 3 steps to prepare for carbon neutrality, namely:

- Explicitly embed carbon neutrality as one component within the City's Sustainability Framework;
- Establish a Carbon Neutral Provisional Fund; and
- Initiate embedding the cost of greenhouse gas emissions into the City's Land and Capital process by requiring that any relevant information pertaining to greenhouse gas emissions (growth and reductions) be included into project submission information.

A separate report is being brought forward to fulfill the 4<sup>th</sup> step which is to establish a baseline for measuring emissions and propose early strategic action to reduce the City's carbon footprint.

## **Analysis**

### **Reaching Agreement on Meeting Carbon Neutrality, in a Sustainable Manner**

While a strong concept in theory, it is challenging to implement carbon neutrality effectively. The City's proactive efforts have meant that the City of Richmond is well-informed about carbon neutrality and is in a strong position for advancing a strategy that meets City interests and Provincial objectives.

A key feature of the City's strategy is that it is seeking to advance carbon neutrality, not as an end-goal in itself, but as one strategy for reaching the much broader goal of community sustainability. By formally embedding carbon neutrality as one component within a broader sustainability agenda, the City of Richmond is able to advance carbon neutrality within a complete and balanced approach to sustainability. This means that the City is better able to direct appropriate level of resources given suite of sustainability objectives. (It is noted that corporate emissions account for about 1% of community-wide emissions).

Additional features of the City's approach include:

- a focus on retaining investment within the local community;
- a focus on reducing corporate emissions and reducing costs associated with offsets;
- a focus on cost-effective strategic action (e.g., reducing emissions that "count" first<sup>6</sup>, leveraging all tools available to municipalities including policy instruments, fiscal incentives, land-use planning, procurement, capital investment; a focus on big value action that minimizes administrative costs, etc.);
- an emphasis on both greenhouse gas emission reduction (i.e., creating less harm) and increasing carbon resiliency (i.e., creating value).

<sup>6</sup> As per protocol, carbon neutrality applies to a specific scope of emissions. While it is important to reduce emissions from all activities, a focus first on those emissions that have an associated carbon costs yields the dual benefit of increased climate protection and reduced corporate operational costs.

It is recommended that Richmond Council adopt the proposed Richmond approach to carbon neutrality and that the City continue to work with the Province and UBCM to reach agreement on implementation. Staff will provide an update on progress in Fall 2011.

### *Financial Implications*

The commitment to carbon neutrality seeks to reduce long-term costs associated with climate change by accelerating greenhouse gas emission reduction. The Provincial Framework means that the City would need to expend its carbon tax reimbursement on the investments outside of the Richmond community through the purchase of third-party offsets. This exchange would need to be continued as long as the City remained committed to carbon neutrality.

Richmond's proposed strategy is aimed at retaining the carbon tax reimbursement within the Richmond community. The strategy also seeks to reduce corporate greenhouse emissions first, thereby, reducing offset costs which are expected to increase over time. The strategy also leverages all available municipal tools and leverages existing program and initiatives in order to develop low-cost reduction and compensation action initiatives that serve multiple community benefits.

### **Financial Impact**

There is no additional cost to the City from this report. Costs associated with specific accelerated emission reduction action, compensation action development or other activities involved in implementing the proposed approach will be brought forward to Council for prior approval.

### **Conclusion**

Demonstrating corporate leadership in doing its part to protect the climate and avoid dangerous levels of climate change, the City of Richmond committed to achieving carbon neutrality in its corporate operations by 2012. This report recommends that Council adopt a proposed made-in-Richmond approach to meet this commitment in an innovative manner that accelerates climate protection, meets multiple local government objectives and advances the broader sustainability agenda.

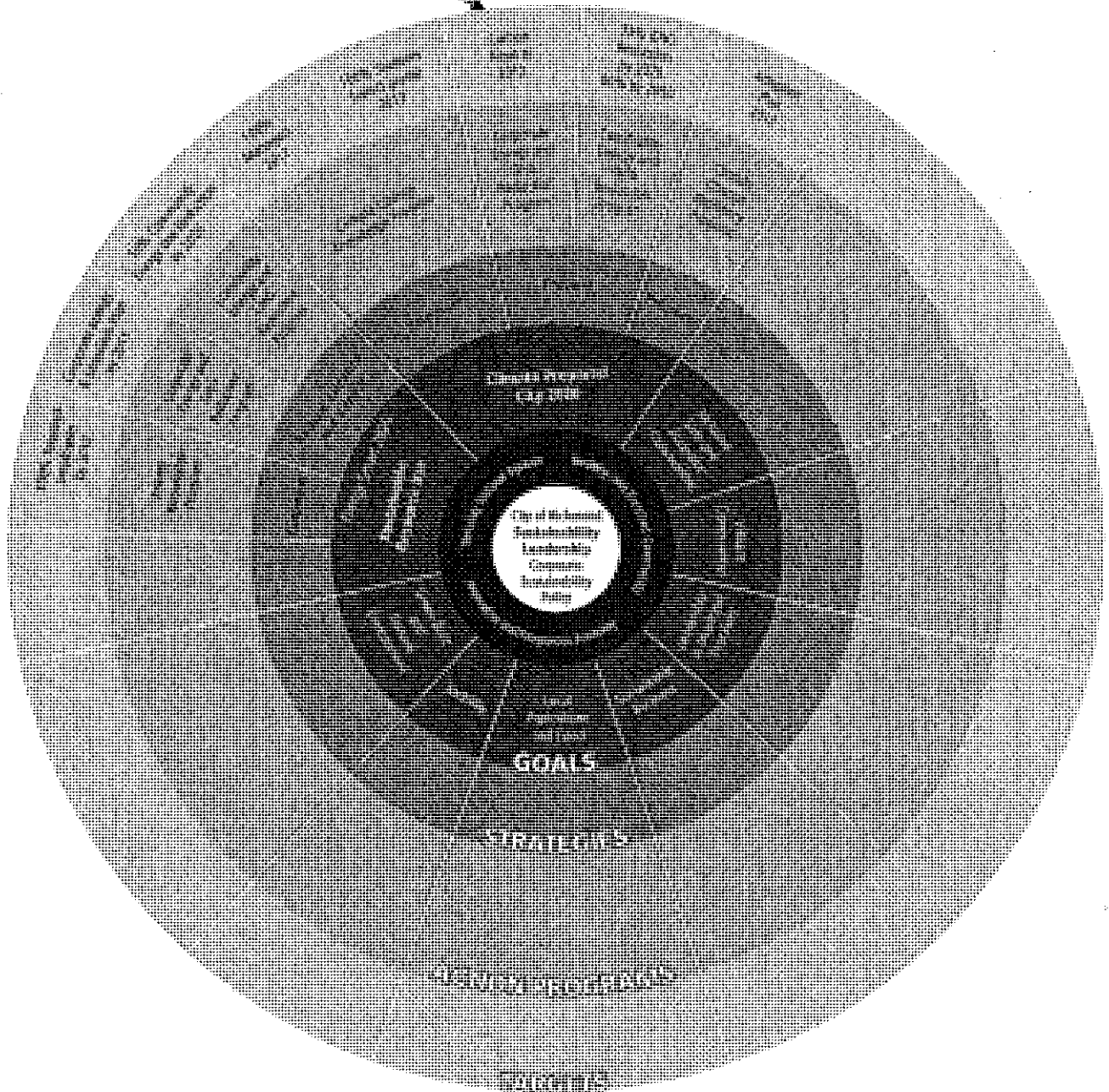


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MD:md

## City's Sustainability Framework and Carbon Neutral Commitment

*City's carbon neutral  
commitment for  
corporate emissions*



## Glossary of Climate Change Terminology

### Glossary

#### The Science

##### Carbon

Carbon (C) is the building block of life. It is the basic element in all living things, including 50% of the dry weight in the human body. In the form of carbon dioxide, carbon is a powerful greenhouse gas. However, the term "carbon" used in discussing climate change does not just refer to carbon dioxide. It includes the other powerful greenhouse gases, such as methane and nitrous oxide.

##### Carbon Dioxide (CO<sub>2</sub>)

A colourless, odourless gas, formed during breathing, combustion, and decaying of organic materials (e.g., plants, animals). Carbon dioxide is a major greenhouse gas, mainly emitted by the combustion of fossil fuels.

##### Carbon Footprint

Carbon footprint refers to the total amount of greenhouse gases produced by human activities. This is usually expressed in equivalent tons of carbon dioxide (CO<sub>2</sub>), which is the major greenhouse gas. For example, when we burn fossil fuels to run our vehicles or heat our homes, we are releasing carbon dioxide. Almost all our products (food, clothing, materials, etc.) are brought to us through transportation which emit CO<sub>2</sub>. Our carbon footprint is the sum of the CO<sub>2</sub> emissions caused by our activities, usually calculated over a year.

##### Climate

The climate of an area is its local weather conditions — such as temperature, precipitation (rainfall, snow, etc.), humidity, sunshine, cloudiness, wind, and air pressure. It is the weather averaged over a long period of time.

##### Climate Change

Changes in the climate of the earth as a whole, caused by human activities that release greenhouse gases.

##### Fossil Fuels

Fossil fuels, also known as mineral fuels, are natural resources such as coal, oil and natural gas. They are called "fossil" fuels because they are formed from the remains of ancient plant and animal life.

##### Greenhouse Gases (GHGs)

Surrounding the earth like a giant greenhouse, they maintain the earth's climate. The six primary greenhouse gases are: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulphur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs).

##### Reservoir/ Sinks

A component of the climate system, other than the atmosphere, which has the capacity to store, accumulate, or release carbon or a greenhouse gas. "Oceans, soils, and forests are examples of reservoirs of carbon.

#### Management Terminology

##### Adaptation

Adaptation is the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. The definition recognizes that humans can adjust to past ("actual") climate change and its impacts, or prepare for projected future ("expected") climate change and its impacts.

##### Carbon Neutrality

Carbon neutrality is a commitment to reduce greenhouse gas emissions (GHG) as much as possible and then to "offset" remaining emissions through emission reduction credits. Credits can be earned through various activities, including projects which displace fossil fuels (e.g., installation of solar or geothermal based energy systems, capture emissions (e.g., GHG releases from landfills) and projects that absorb GHGs from the atmosphere carbon sequestration projects (through reforestation). An organization is carbon neutral if it has calculated its total emissions, taken measures to minimize those emissions, and used offsets to net residual emissions to zero.



### **Carbon Sequestration**

The process of increasing the carbon stored in a reservoir other than the atmosphere, in order to reduce carbon dioxide emitted by human activities. Carbon dioxide can be removed from the atmosphere through such actions as planting forests (trees absorb CO<sub>2</sub>). This removal is temporary, though, because CO<sub>2</sub> returns to the atmosphere when plants die or are burned.

### **GHG Emission Inventory**

A database that lists, by source, the amount of greenhouse gases discharged into the atmosphere over a given time period, such as a year.

### **Offsets**

Offsets are project-based emission reductions or removals that are used to meet voluntary or regulatory emission reduction obligations.

### **Targets**

A target is a desired level of performance to be attained by a certain timeframe. Targets are a commitment to improvement.

## **Legislative and Policy Terminology**

### **Carbon Tax**

A surcharge on the carbon content of oil, coal, and gas that discourages the use of fossil fuels and aims to reduce carbon dioxide emissions. B.C. has introduced a carbon tax that will be revenue neutral, meaning all revenue generated by the tax will be returned to individuals and businesses through reductions in other taxes.

### **Climate Action Charter**

This Charter establishes a joint local-provincial commitment to climate change and greenhouse gas reduction. The Charter is voluntary and if signed, commits local governments to:

1. be carbon neutral in respect of operations by 2012,
2. measure and report on community's GHG emissions profile; and
3. create complete, compact, more energy efficient rural and urban communities.

### **Climate Action Revenue Incentive Program (CARIP)**

Climate Action Revenue Incentive program is conditional grant that enables local governments to recoup 100% of their annual carbon tax expenditure. To be eligible, local governments must have signed the Climate Action Charter and commit to becoming carbon-neutral by 2012.

### **Greenhouse Gas Reduction Targets Act (GCRTA)**

Brought into force on January 1, 2008, the Provincial GCRTA requires the public sector become carbon neutral by 2010 and to make a public report available annually that details action taken towards carbon neutrality. The provincial government (including individual ministries and agencies), schools, colleges, universities, health authorities and Crown corporations are all included in this commitment.

### **Local Government (Green Communities) Statutes Amendment Act (Bill 27)**

Introduced in April, 2008, Bill 27 requires local governments to include greenhouse gas emission targets, policies and actions in their Official Community Plans and Regional Growth Strategies. The legislation also enables local governments to use development permits to promote energy and water conservation, reduce greenhouse gases and encourage alternative transportation options for off-street parking. Developers who are building small housing units (29 square metres or less) are exempted from paying Development Cost Charges (DCC). Local governments also have the ability to waive or reduce DCC charges for green development including small lot subdivisions and affordable rental housing.

## Key Challenges Associated with Carbon Neutrality

Carbon neutrality is a relatively new concept and the science and best management practices are continuing to evolve. Currently, there remains a number of key challenges that need to be well-managed to avoid potential pitfalls.

Key management challenges include:

1. Avoiding the **“Paying to Pollute”** agenda *(where a dominant focus on offsets means that organizations achieve carbon neutrality with little reduction, and even potential growth, in their own levels of greenhouse gas emissions).*
2. Avoiding the **“Continuous Payment”** agenda *(where a dominant focus on balancing emissions without adequate source reduction means organization must keep paying for emissions every year. With costs projected to increase overtime, this approach is not considered to be fiscally wise)*
3. Avoiding **“Myopia”** *(where disproportionate level of focus is placed on achieving carbon neutrality, resulting in sub-optimal performance in advancing climate change adaptation and other equally important objectives of sustainability).*
3. Avoiding getting lost in **“Minutia ”** *(where disproportionate level of focus is placed on a relatively small amount of greenhouse gas emissions. resulting in failure to achieve bigger gains in more strategic areas. A key consideration for local governments is ensuring that the right balance of action is being advanced towards reducing corporate emissions which represent about 1% of a community's emissions and supporting community-wide emissions which at 99%, represent the vast majority of emissions).*
4. Avoiding **“Questionable Offsets”** *(which tarnish corporate reputations)*
5. Avoiding **“Administrative Inefficiencies** *(where disproportionate amount of limited funds are being directed towards greenhouse gas emission accounting and transaction costs, rather than on-the-ground action)*
5. Creating **“Carbon Resiliency - Doing Good not just Less Bad”** *(in practice, approaches to carbon neutrality have predominately been focussed on only one side of the carbon equation - reducing the amount of emissions being emitted into the atmosphere. Much less focus has been placed on the other yet equally important side of the equation which are actions focussed on retaining carbon within the Earth's crust and/or withdrawing carbon from the atmosphere. This type of action is called carbon sequestration. Due to the difficulty in measuring sequestering value, initiatives that serve to actually improve conditions are generally left out of the carbon neutral agenda.)*



City of RICHMOND

FILE

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	INT
✓ DW	DW
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WB	

MALCOLM BRODIE  
 MAYOR

May 26, 2008

0340-03-01

Honourable Gordon Campbell  
 PO Box 9041  
 STN PROV GOVT  
 Victoria BC  
 V8W 9E1

Dear Premier Campbell:

Re: BC/Local Government Climate Change Action Charter

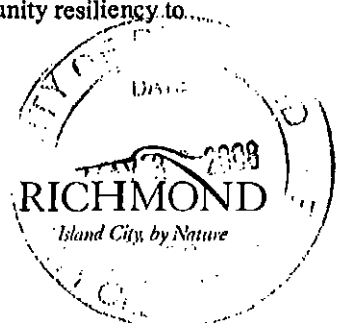
The City of Richmond is deeply concerned about the challenges facing local communities and has been active in advancing sustainability through a wide range of action (see enclosed report: City of Richmond – Charting our Path Towards a Sustainable Community). Many of these initiatives are aimed at reducing greenhouse gas emissions (GHG) at both the corporate and community level (Attachment 1: Synopsis of the City of Richmond's Climate Change program).

The purpose of this letter is to advise that the City of Richmond supports the Provincial government in its objectives to reduce GHG emissions and has signed the Provincial Climate Change Action Charter. The City of Richmond is requesting, however, that the Province work with municipalities to develop a local government climate neutral program which considers multiple climate change objectives and does not deter resources away from other equally important priorities.

Specifically, Richmond is seeking the development of a carbon neutral program which:

- is flexible to enable municipalities to develop tailored approaches which meet the intent of the Charter and integrate with multiple local sustainability priorities,
- supports a **comprehensive** climate change approach, one which is supportive of both corporate and community-wide initiatives in the areas of emission reduction and adaptation,
- is supported by adequate municipal **assistance** (e.g., expertise, funding sources, technical resources, etc.)
- provides reasonable **timeframes** for local government implementation.

A flexible and well-resourced local government carbon neutral program will best enable Richmond to pursue action that fits with the City's comprehensive approach towards climate change. The City has adopted an overarching Climate Change Response Agenda which aims to pursue strategic action concurrently in 3 priority areas: *community empowerment, greenhouse gas emission reduction and adaptation planning* to strengthen community resiliency to unavoidable change.



The City of Richmond thanks the Province for adopting a leadership role in climate change management and looks forward to working with the Province and other local communities in developing and pursuing collective action for advancing climate change solutions for BC.

Yours truly,



Malcolm D. Brodie  
Mayor

pc: Hon. Ida Chong, Minister of Community Services and Minister Responsible for Seniors' and Women's Issues  
Hon. Barry Penner, Minister of Environment and Minister responsible for Water Stewardship and Sustainable Communities  
Hon. Olga Ilich, Richmond MLA, Minister of Labour and Citizens' Services  
Hon. Linda Reid, Richmond MLA, Ministry of State of Childcare  
John Yap, Richmond MLA  
Graham Whitmarsh, Head Climate Action Secretariat  
Gary MacIsaac, Executive Director, Union of B.C. Municipalities

## **Attachment 1: City of Richmond Climate Change Program - Synopsis**

### **1. Overarching Plan – Climate Change Response Agenda**

In fall 2007, Richmond City Council adopted an overarching framework for guiding corporate action on climate change ([http://www.richmond.ca/cityhall/council/agendas/council/2007/091707\\_minutes.htm](http://www.richmond.ca/cityhall/council/agendas/council/2007/091707_minutes.htm)).

This Agenda (see attached) is based on pursuing initiatives concurrently under 3 pillars of action:

- **Empower** - *increase corporate and community capacity for addressing climate change;*
- **Prevent** - *reduce greenhouse gas (GHG) emissions; and*
- **Prepare** - *implement strategies for adapting to unavoidable changes.*

### **2. City Action – Key Initiatives 2007/2008**

The City of Richmond has undertaken a variety of initiatives in effort to advance sustainability-based community development and corporate activity. Many of these initiatives support the City's Climate Change response objectives by reducing emissions and strengthening capacity to respond to change. A summary of core City initiatives which support climate change action is provided in attached table. Key initiatives being conducted through 2007/2008 work period are outlined below.

#### *i. Empower*

The City is currently working in partnership with BC Sustainable Energy Association (BC SEA) to raise awareness of climate change and its solutions in Richmond schools. BC SEA are conducting a series of workshops through their **Climate Change Showdown** program in a variety of Richmond schools throughout the 2007/2008 school term.

The Corporate Sustainability Initiative has been organizing a **Sustainability Speaker Series** for Richmond staff. Among a suite of other issues and topics, this series has included presentations and films on climate change. The City's Engineering Department incorporated climate change considerations in its annual departmental workshop for 2007. Work included presentations from guest speakers and small group brainstorming sessions on potential strategies for addressing climate change impacts on the department.

#### *ii. Prevent*

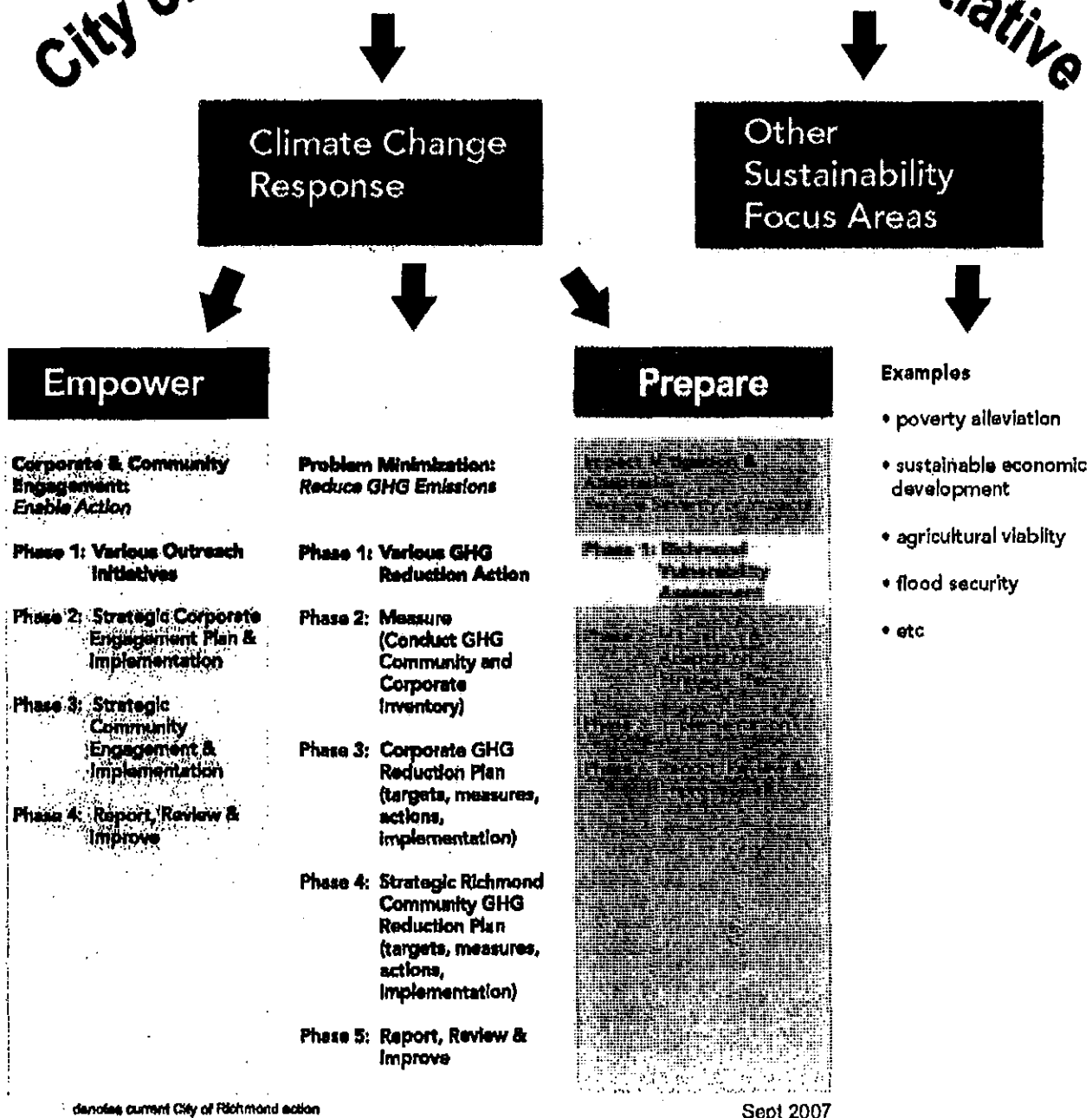
Richmond completed **corporate greenhouse gas (ghg) emission inventory** for the years 1995 and 1999 and has undertaken a number of initiatives which reduce ghg. The City is currently conducting an updated inventory study of corporate emissions which will incorporate the past years data and include emissions inventory for 2003 and 2006. Once the City has an up-to-date inventory, work can proceed with setting targets and strategic reduction planning. The inventory work is anticipated to be completed by Spring 2008.

#### *iii. Prepare*

In the fall of 2007, the City initiated action in preparing the municipality to better adapt to unavoidable climate change impacts with the launch of the **City of Richmond - Impacts & Early Adaptation Study**. The purpose of the Study is to consolidate existing knowledge on potential changes, identify potential local impacts and identify early adaptation strategies. The Impacts & Early Adaptation Study is a joint effort among the City of Richmond, Environment Canada and University of British Columbia. A key aspect of the Study is to identify adaptive approaches that also reduce greenhouse gas emissions and ultimately, support long-term sustainable community development. An interdepartmental staff team was assembled in the fall of 2007 to provide oversight and strategic advice in guiding the Impacts & Early Adaptation Study.

City of Richmond – Climate Change Response Agenda

# City of Richmond: Sustainability Initiative



**Table 1: City of Richmond Climate Change Action Initiatives**

Action Area		Initiatives	Status
Empower	<b>Supporting Global Action</b> <i>International Government Liaison</i> Support international efforts for reducing GHG emissions globally	Council support for Kyoto Protocol	Complete
		Council endorsement of the Toronto Declaration and Communiqué	Complete
	<b>Supporting Corporate Action</b> <i>Corporate Engagement</i> Raise awareness of climate change impacts, opportunities and solutions throughout the corporation	Sustainability Speaker Series	Ongoing
	<b>Supporting Local Community Action</b> <i>Community Engagement</i> Raise awareness and support community action for reducing energy consumption and GHG emissions	Climate Change Showdown	Ongoing
		Anti-idling School Campaign	Ongoing
		Recycling and Water Conservation Education	Ongoing
		Alternative Transportation Activities (e.g., Island City by Bike, etc.)	Ongoing
		1-Tonne Community Challenge (complete)	Complete
Prevent	<b>Monitor and Measure GHG Emissions</b>	GHG Emission Inventory	Ongoing
	<b>Support Community GHG Emission Reduction</b> <i>Community Servicing</i> Reduce the amount of GHG emissions produced from the consumption and production of potable water. Reduce the amount of GHG emissions produced from landfills.	Water Metering Program	Ongoing
		Use of Trenchless Technology for Installation and Replacement of Infrastructure (water, storm, sanitary, traffic signals & lighting)1	Ongoing
		Curbside Recycling Program	Ongoing
	<b>Sustainable Community Planning</b> Reduce energy consumption and GHG emissions through community planning, transportation-demand management and natural resource protection.	Urban development policies for encouraging compact and complete communities  (OCP policies for reducing urban sprawl, supporting light rail transit, encouraging alternative forms of transportation, bike and greenway planning, etc.)	Ongoing
		Dedication of Richmond Nature Park/Terra Nova Natural Area	Complete
		Tree Protection Bylaw	Ongoing
		ESA Development Permit	Ongoing
		Urban Forest Management Strategy	Complete
		Community Energy Management Program	In Development
	<b>Reduce Corporate GHG Emissions</b> <i>Procurement</i> Reduce energy consumption and GHG emissions from City supplies	Environmental Purchasing Policy/Guidebook	In Use
	<b>Building &amp; Lighting Energy</b> Reduce energy consumption and GHG emissions from City buildings and facilities	High Performance Building Policy	In Use
		Corporate Energy Management Program	Ongoing
		Use of LED Street Lighting	Ongoing
	<b>Green Fleet</b> Reduce City vehicle fleet's GHG emissions	Green Fleet Policy	In Use
		Resolution to Purchase Hybrids/Smart Cars	In Use
		Works Yard Idle-Free Campaign	Complete
		City Car-Pool program	Ongoing
		Use of 5 % Biodiesel	Ongoing



Councillors  
Margot Daykin

Copied & distributed to all.
Date: <u>Sept 11, 2008</u>
Initials: <u>CM</u>

SEP 03 2008

Ref: 127830

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218 2340-003 01

His Worship Mayor Malcolm D. Brodie  
City of Richmond  
6911 No. 3 Road  
Richmond, BC V6Y 2C1

Dear Mayor Brodie:

Thank you for your letter of May 26, 2008, addressed to Honourable Gordon Campbell, Premier, regarding your views on the British Columbia Climate Action Charter (Charter). As the Minister of Community Development, responsible for local government issues, I am pleased to respond on behalf of Premier Campbell. I apologize for the delay in responding.

On behalf of the Ministry of Community Development (Ministry), I would like to commend the City of Richmond (City) for developing its Climate Change Response Agenda, specifically with respect to community empowerment, greenhouse gas (GHG) emission reduction, and adaptation planning.

As you may be aware, the Province of British Columbia is working to support local government implementation of the Charter through a number of initiatives, including, but not limited to, the Green Communities Committee working groups, Ministry grant programs, the Sustainability Facilitator Program, the Community Energy and Emissions Inventory (CEEI), the Green Communities Incentive System, and the Green Communities Toolkit. Specifically, the CEEI is a measurement tool being led by the Ministry of Environment. This provincially sponsored initiative will provide local governments with energy and emissions data inventory baselines, ongoing monitoring, and periodic reports to help inform community decision-making. This work is intended to inform planning processes and to guide and monitor local government commitments to GHG targets. If you would like more information on this, or the other mentioned initiatives, please contact Ms. Karen Rothe, Manager of Regional Growth Strategies, by telephone at: 250 356-7064, or by email at: [Karen.Rothe@gov.bc.ca](mailto:Karen.Rothe@gov.bc.ca).

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YEARS  
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City of Richmond RECEIVED SEP 10 2008 MAYOR'S OFFICE
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Ministry of Community  
Development

Office of the Minister

Mailing Address:  
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Victoria BC V8W 9E2  
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250 387-4312

GP - 26

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[www.gov.bc.ca/cserv](http://www.gov.bc.ca/cserv)

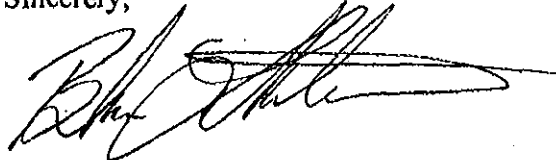


His Worship Mayor Malcolm D. Brodie  
Page 2

Please accept my congratulations on the steps the City is taking to move toward meeting the spirit and intent of the Charter. The Ministry looks forward to working with the City and other communities in developing innovative solutions to the challenges presented by climate change.

Thank you, again, for taking the time to inform me of your concerns regarding this matter. Your comments are appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read 'Blair Lekstrom', with a long horizontal flourish extending to the right.

Blair Lekstrom  
Minister

pc: Honourable Gordon Campbell  
Premier

Honourable Barry Penner  
Minister of Environment

Honourable Olga Ilich, MLA  
Richmond Centre

Honourable Linda Reid, MLA  
Richmond East

Mr. John Yap, MLA  
Richmond-Steveston

Mr. Graham Whitmarsh  
Head  
Climate Action Secretariat

Mr. Gary MacIsaac  
Executive Director  
Union of British Columbia Municipalities

Ms. Karen Rothe  
Manager of Regional Growth Strategies  
Intergovernmental Relations and Planning Division

## **Proposed Richmond Carbon Responsible Strategy**

### **Guiding Principles**

- *Focus on Sustainability* (advance carbon neutrality as one component strategy within the broader sustainability agenda);
- *Invest Locally* (retain greenhouse gas emission expenditures within the local community);
- *Reduce First, Offset Second* (prioritize greenhouse gas emission reduction, not offsetting to demonstrate strong corporate leadership and reduce long-term corporate costs);
- *Focus on Action, not Accounting* (focus on big value action that yields significant community benefit and minimizes low-value costs associated with greenhouse gas administration); and
- *Be Carbon-Balanced* (direct action towards both greenhouse gas emission reduction and carbon sequestration).

### **Prepare for Carbon Neutrality – Develop a Carbon Responsible Program**

1. Position Carbon Neutrality within the City's Sustainability Framework. (*Complete*)
2. Establish a Carbon Neutral Provisional Fund to support accelerated corporate greenhouse gas emission reduction and other carbon neutral action, including the purchase of offsets if required. (*Complete*)
3. Incorporate considerations of greenhouse gas emissions (growth and reductions) into project submission information as part of the City's Land and Capital process. (*Complete*)
4. Establish a baseline of emissions and identify strategic focus areas to reduce the City's carbon liability to largest extent possible over the next 2 years.
5. Work with the Province to recognize local compensation action initiatives.
6. By end of 2012, establish a Carbon Responsible Program for Council consideration.

### **Be Carbon Neutral – Implement Carbon Responsible Program**

If adopted, the Carbon Responsible Program will manage the following four main steps on an annual basis:

#### **1. Embed**

- review City's Carbon Responsible Program in accordance with City's broader sustainability goals and objectives

#### **2. Measure**

- establish and manage the measurement of the City's greenhouse gas emissions to meet all City commitments (e.g., BC Climate Action Charter, Mexico Pact, etc.)

### **3. Avoid and Reduce, Strategically**

- develop and realize a corporate greenhouse gas emission reduction target
- collaboratively advance action to avoid future greenhouse gas emissions and reduce the City's existing emissions through a variety of means such as:
  - ~ *corporate capacity building* initiatives (e.g., general climate change and carbon management awareness, low-carbon driving training, etc.)
  - ~ *corporate policy development* (e.g., "no net carbon increase" for new projects, energy standards incorporated into the City's High Performance Building Policy, etc.)
  - ~ *strategic planning* (e.g., trip reduction plans for departments)
  - ~ *strategic project action* (e.g., fleet conversion, IT systems to reduce mobility demand, etc.).
- develop supportive tools and embed the cost of greenhouse gas emissions within relevant City decision-making processes (e.g., carbon calculator embedded within the Land and Capital Model)
- prepare Corporate Energy and Carbon Neutral Action Plan to identify strategic opportunities for integrated corporate energy and emissions reduction initiatives, identify strategic credit generating initiatives and secure carbon rights.
- manage the City's Carbon Neutral Provisional Fund and develop principles, financing mechanisms (e.g., setting up an endowment to provide partial support, etc.) and other tools to support the advancement of strategic greenhouse gas emission reduction action

### **4. Balance - invest in local carbon compensation action (sequestering and greenhouse gas emission reduction)**

- advance compensation action that directs investments within Richmond
- capture carbon compensation credit from post-2007 and future City investments (e.g., organic recycling program, ecological areas acquisition, etc.) and advance strategic future local carbon compensation action that leverages City programs and supports other City objectives

### **5. Report and Improve**

- coordinate and manage reporting
- identify opportunities for improvement





# City of Richmond

## Report to Committee

**To:** General Purposes Committee

**Date:** June 1, 2011

**From:** Cecilia Achiam, MCIP, BCSLA  
Interim Director, Sustainability and District Energy  
Senior Program Manager, CPMG, CAO's Office

**File:** 01-0370-01/2011-  
Vol01

**Re:** **Reaching Carbon Neutrality : Energy and Emissions Inventory and  
Recommended Early Action**

### Staff Recommendation

That greenhouse gas emission reduction action in corporate facilities and civic fleet use through the 2012 budget process and the other targeted action as presented in the report titled "Reaching Carbon Neutrality: Energy and Emissions Inventory and Recommended Early Action", dated June 1, 2011, be endorsed.

Cecilia Achiam, MCIP, BCSLA  
Interim Director, Sustainability and District Energy  
Senior Program Manager, CPMG, CAO's Office  
(604-276-4122)

Att. 1

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Public Works	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Fire Rescue	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Project Development	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Facilities Services	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Parks	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
Finance	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		
<b>REVIEWED BY TAG</b>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	<b>REVIEWED BY CAO</b>	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>